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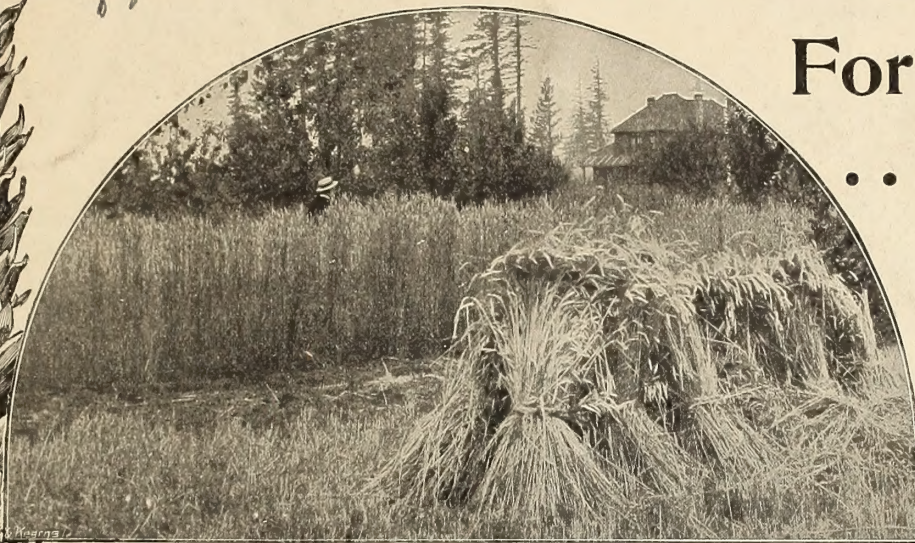


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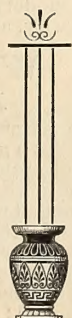
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Henderson's Superior AGRICULTURAL SEEDS

For Fall ...
.. Sowing
1903



Seed Wheat,
Rye,
Scarlet Clover,
Grasses, etc.



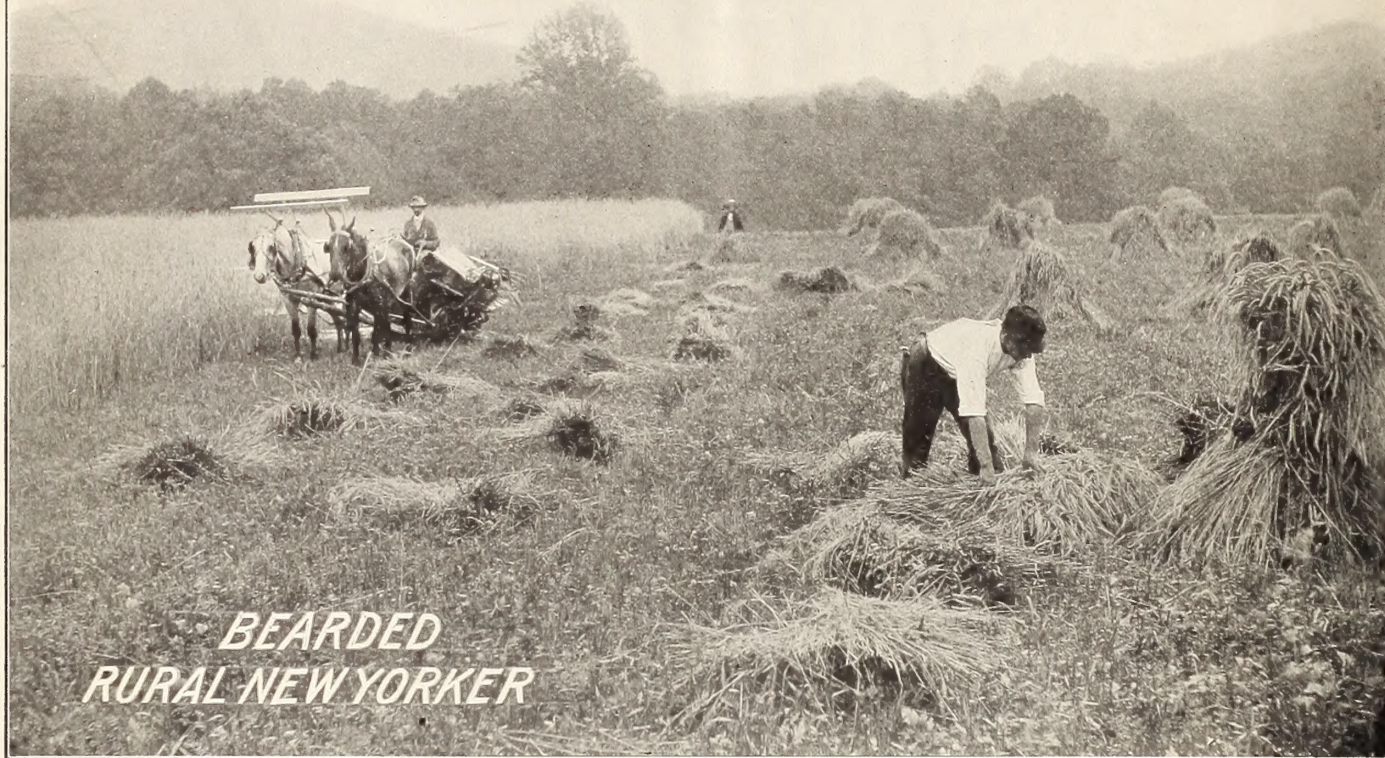
Peter Henderson & Co.,

35 & 37 Cortlandt Street,

... NEW YORK.

Copyright, 1903. by Peter Henderson & Co.

HENDERSON'S SUPERIOR SEED WHEAT



*BEARDED
RURAL NEW YORKER*

HENDERSON'S SUPERIOR WINTER SEED WHEAT.

Prices are subject to the fluctuations of the market. The prices herein named are those ruling August, 1903. Delivery f. o. b. New York, bags extra.

*Henderson's Superior
... Seed Wheat
is grown from pedigree races.*

PROPER Selection of Seed Wheat, as well as Proper Cultivation, are essential in securing highest results, for, like any other product, it is the poor article that brings the poor returns, while there is always a market for the superior product at remunerative prices. It costs almost as much to lay down an acre of wheat that yields only 15 bushels per acre as one that will yield from 35 to 50 bushels—the first scarcely returns the cost of the investment, while the latter yields a handsome profit, and the leading essential needed to attain such results is to use superior seed. The

“running out” of certain varieties of wheat is considered by experts as due to the improper selection of wheat intended for seed purposes, for wheat is such a strictly self-pollinating plant that unless cross-pollination is practiced occasionally even between plants of the same variety, and intelligent selection made of the ideal plants, there is a tendency towards loss of vigor and eventually it “runs out.”

“It is noteworthy that in this country the wheat hybrids thus far produced, which have given valuable results, are racial hybrids, in many cases very complex, including several different races.”

—Year Book U. S. Dept. of Agriculture.

Most of the new varieties of HENDERSON'S SUPERIOR WHEATS that we offer in this catalogue are the offspring from cross-bred combinations of meritorious Russian and American races, with some blood from the Mediterranean long berry. This is the blood that was utilized in producing the widely-grown Winter Fife, Early Red Clawson, Early Genesee Giant, and other well-known varieties, so that it may confidently be expected that the later, carefully-bred sorts now offered will show remarkable improvement in all desirable qualities, including yield, gluten, milling qualities, hardiness, health, vigor, etc. HENDERSON'S SUPERIOR SEED WHEAT is not only grown especially for seed purposes from choicest selected cross-bred and pedigree strains, but it is all re-cleaned at our warehouses (250,000 bushels capacity), which are equipped with the most modern seed-cleaning machinery in America. This enables us to supply direct to the farmer plump and heavy seed, of undoubted superiority, at lowest possible prices, where quality is considered.

TWO GRAND NEW WINTER WHEATS FOR 1903.

Silver Sheaf Longberry Red (Bearded).

The most perfect Longberry Red Wheat grown. It will prove to be the finest Longberry Red ever known, and will make a sensation among wheat growers and millers as soon as known. This marvel originated from a cross between the well-known American Bronze and a cross from Lancaster and a seedling Longberry. It is one of the hardiest of all wheats, a strong, healthy grower and can be sown very late. If sown early, $1\frac{1}{4}$ bushels of seed per acre will be enough on strong soil. Straw of light yellow color, medium tall, thick-walled and strong; head long, wide and full; chaff thin and silvery white; grain large, dark and flinty, and nearly as long as rye kernels. It will command the highest market price of any Longberry yet grown, and will be the leading fancy milling wheat of this country. Price, \$1.25 per peck, \$3.50 per bushel.

Early Red Chief (Beardless).

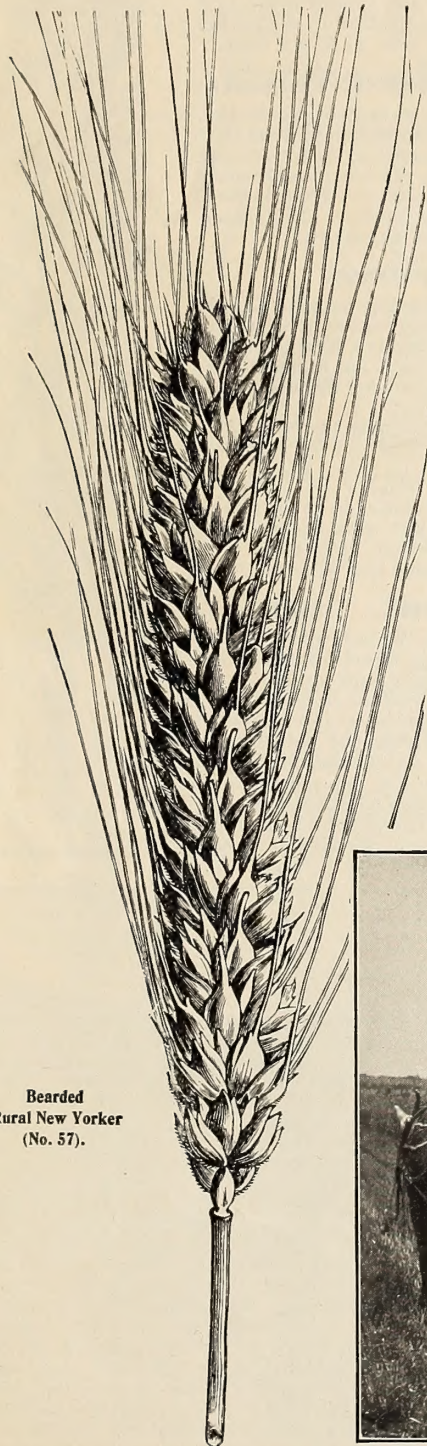
We herewith introduce a very superior new wheat, for which we predict a grand future. It originated from Early Red Clawson and Red Arcadian. Without doubt, Early Red Chief will prove a wonder in the wheat line, being a rough-and-ready sort that can be depended upon for a granary filler even in unfavorable seasons. It is one of the strongest-growing and productive sorts yet introduced; its growth in the fall is strong, foliage large, thick and dark, covering the ground early in the season, and can be sown very late. It is one of the first to start in spring. Straw exceptionally thick-walled; strong heads, long and wide, carried erect, of a reddish brown shade, completely packed with large, dark red kernels. Price, 80c. per peck, \$2.50 per bushel.

Two Grand
WINTER
WHEATS

RURAL NEW YORKER

Bearded
..AND..
Beardless.

THESE are both the result of upwards of twenty years' thoroughly scientific crossing and careful selection at the hands of the late Mr. E. S. Carman, the well-known editor of the *Rural New Yorker*, and raiser of many of the most valuable agricultural introductions of recent years. These two varieties have been selected from hundreds of crosses and varieties as superior in all desirable qualities. They have now been grown in most wheat-growing sections, and most flattering testimony has been received by us regarding their merits.



Bearded
Rural New Yorker
(No. 57).

"Bearded" Rural New Yorker

(Number 57)

has heavily-bearded heads which are beautifully symmetrical, being pointed at the tip, broad in the middle, and tapering towards the stem. The straw is unusually tall and strong and stools freely, frequently having 35 to 40 stalks from a single grain. The heads are compact, averaging three kernels to a spikelet or "breast," and ten breasts to a side. The kernels are of medium size and of an attractive color, between the so-called "red" and amber, possessing the requisite degree of hardness for the production of the finest grade of flour, and is much sought after by millers. The chaff is clear white, with a trace of velvet sufficient to make it difficult for the green fly to attack it, and the heads do not mildew as the full velvet chaff varieties are liable to do. (See cut.) 75c. per peck, \$2.25 per bushel; 10-bushel lots, \$2.00 per bushel.

"Beardless" Rural New Yorker

(Number 6)

This beardless variety is a hybrid between Rye and Armstrong Wheat, though all traces of Rye have disappeared and it now appears a handsome, beardless Wheat. It succeeds and produces heavy crops on poor, thin land, where Wheat could not be successfully or profitably grown, and it also has extreme hardness to recommend it. When first raised, some years ago, the top of the culms was downy with Rye culms. This characteristic could not be fixed, so that for this variety the culms having no down were alone selected. The gold-colored straw is very thick and strong, easily supporting the heavy grain without breaking. The large amber kernels are placed four to a breast, eight breasts to a side, with long symmetrical heads having a brown chaff. (See cut) One of our growers says:

"It stools as strong as any wheat I ever saw. It had a vigorous, healthy growth all the season, and stood well without lodging. It is very hardy."

75c. per peck, \$2.25 per bushel; 10-bushel lots, \$2.00 per bushel.



Beardless
Rural New Yorker (No. 6).



BEARDLESS RURAL NEW YORKER

Bearded Winter Fife.

A GRAND Wheat, the progeny of the celebrated Winter Fife crossed with two excellent seedlings. It retains all of the good qualities of the parents, marking a steady advance over the latter in quality, productiveness and the flinty character of the grain. It is without doubt the hardest of all wheats grown. In milling qualities it is superior, containing sufficient gluten for making quick-raising flour of chalk-like whiteness and light bread. It is one of the earliest wheats, ripening with the Early Red Clawson; a strong, healthy grower, stooling rapidly in the fall; starts early in the spring, and is one of the first to head. Straw a little above medium height, strong and wiry; heads very long, wide and well filled; chaff white and bearded; grain medium long, plump and of clear amber shade; bran exceptionally thin, hence will make more flour than most any sort grown. It is one of the heaviest-weighting sorts. It took the first place at the Kentucky Experiment Station over 17 other varieties grown under same conditions. (See cut.) 75c. per peck, \$2.00 per bush.; 10-bushel lots, \$1.85 per bush.

Henderson's Superior Seed Wheat.

It costs almost as much to lay down an acre of wheat that yields only 15 bushels per acre as one that will yield from 35 to 50 bushels. The first scarcely returns the cost of the investment while the latter yields a handsome profit. The leading essential needed to attain such results is to sow Henderson's Superior Seed Wheat, which is grown especially for seed purposes from cross-bred, select pedigree strains of undoubted superiority.

Gold Coin (Beardless).

A very popular wheat that the increasing demand for the seed would indicate is a most satisfactory variety over a large extent of territory. It is unusually productive, having yielded over 60 bushels per acre—while 50 and over is not unusual—and even on large acreages it seldom runs under 40 bushels per acre. One of its enthusiastic users writes:

"It is the best variety for yielding and standing up ever placed before the American farmer, and fairly crowds out other kinds where it has been tried in this section."

"Clawson and Fife do well on my farm, but the Gold Coin does best of all. You should call it 'Henderson's Best of All Wheat.'"

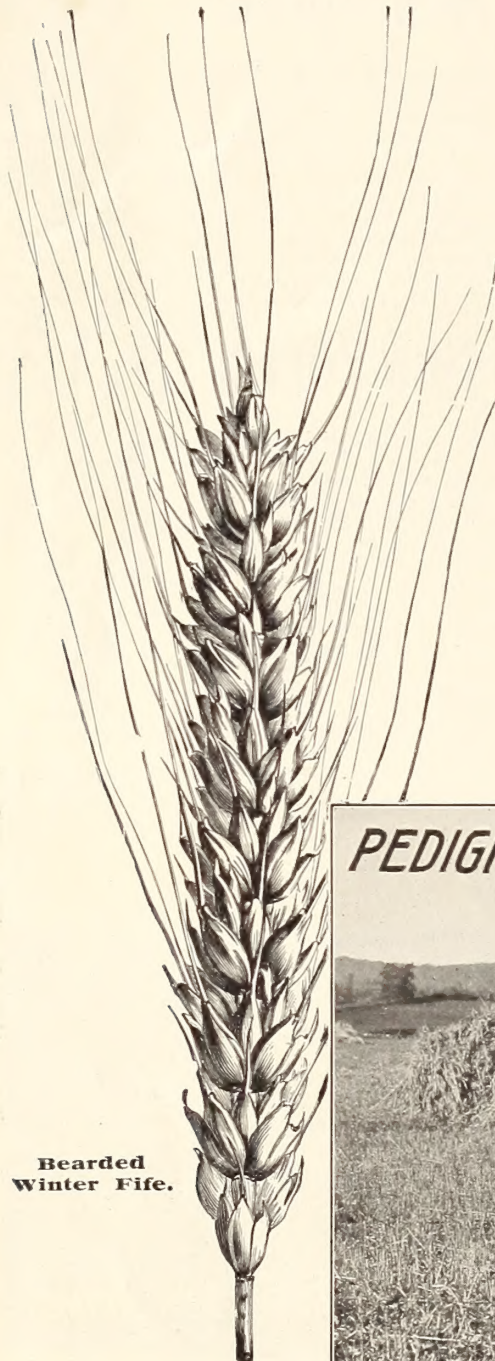
The straw is very stiff and does not lodge even on the richest land. The head is long and compactly filled with choice white grain, frequently having five kernels abreast. (See cut.)

75c. per peck, \$2.00 per bush.; 10-bushel lots, \$1.85 per bush.

Pedigree (Early Genesee) Giant. (Half-Bearded.)

This variety is truly a wonder in the wheat line for thrifty fall growth, early spring stooling, strong, short-jointed straw, solid filled head, fine, hard, amber grain and exceptionally fine milling qualities. On strong clay loam or river bottom it has yielded at the rate of 60½ bushels per acre, and stands up well under high culture. It is a cross from the old Genesee Giant, possessing all of the good qualities of that famous variety when at its best. It is stronger in growth, more compact in head, and produces a very large grain. Can be sown very late with a certainty of standing the winter and gives an enormous yield. Sow late and use two bushels of seed per acre. (See cut.)

75c. per peck, \$2.25 per bush.; 10-bushel lots, \$2.00 per bush.



Bearded
Winter Fife.



Gold Coin.

PEDIGREE EARLY GENESEE GIANT



Henderson's Superior Seed Wheat produces Superior Crops.

Jones' Bearded Longberry. (No. 1.)

WE are confident that this variety will prove to be the most profitable Longberry yet known—it is the result of experiments in crossing this type covering several years—and we feel that it will rapidly displace the old Longberries now no longer profitable on account of weak vitality and light yield, although their quality is the standard by which all other sorts are judged. JONES' BEARDED LONGBERRY (No. 1) is a grand variety and one of the most productive, hardy and profitable sorts ever sent out. It has made a record of 54½ bushels per acre. It has a sturdy, wiry straw of good length, not liable to lodge even on very fertile soil; heads long, wide and exceptionally well filled, bearded and of a rich brown shade; kernels large and long, of an attractive blending of red and amber, indicating to millers its high milling character and requisite hardness for producing a fine grade of flour. Especially adapted for late sowing, giving large yields when sown in October. (See cut.)

75c. per peck, \$2.25 per bushel; 10-bushel lots, \$2.00 per bushel.

Pride of Genesee (Bearded).

One of the most productive varieties, having a long, well-filled head, and the fact that it will give a reasonably good crop on land so poor that common sorts would be a failure, cannot fail to make it a popular sort, as the head does not decrease in proportion to the straw, being large and well filled on a very short, light growth of straw.

75c. per peck, \$2.25 per bushel; 10-bushel lots, \$2.00 per bushel.

Clawson Longberry (Beardless).

This grand cross-bred Longberry was produced from the same blood that bore the famous Red Clawson crossed with Longberry stock. It resembles, in some respects, Red Clawson in the field, but is a stronger grower and more prolific stooler, and has sturdy, wiry straw. Heads long, wide and full; chaff, brown and free from beards; grain, dark amber of the finest quality, large, long, and of true Longberry type. Like its parents, it delights in strong clay loam, and on such soil, with thorough preparation, it will often yield fifty bushels or more per acre. It is largely grown by some of the best wheat growers, by whom it is highly recommended. (See cut.) Sow 1½ bushels per acre.

75c. per peck, \$2.25 per bushel; 10-bushel lots, \$2.00 per bushel.

Diamond Grit or Winter Saskatchewan (Bearded).

A worthy rival to the hard spring wheats. It is superior to every known winter wheat for milling, with the added advantage of making more and finer flour per bushel than any other sort. It is wonderfully productive, of medium height, and of strong, wiry growth; is extremely hardy and very early. The heads, of medium length, are closely set with grain, 4 and 5 kernels abreast—in fact, the head is nearly all grain, of dark red color, short, plump, and weighing 64 lbs. to the measured bushel. This wheat adapts itself to all soils, and has a promising future. (See cut.)

75c. per peck, \$2.00 per bushel; 10-bushel lots, \$1.85 per bushel.



Clawson Longberry.



Jones' Bearded Longberry (No. 1).



We shall be pleased to make Special Prices (where possible) to buyers of large quantities of Grain or Grass Seed. Write us.

HENDERSON'S SUPERIOR... WINTER OATS.

WINTER or TURF OATS are quite extensively grown in the Southern States, where they are in high favor. Sown in the fall they either afford excellent pasturage during the winter or give abundant yield the following season.

The demand for oats of this character has been gradually extending northward, and to meet it we have been growing in Northern Pennsylvania, for several years, an acclimatized strain which is remarkably hardy and will stand the winter as far north as New Jersey. They are incomparably superior to the Winter or Turf Oats of Virginia; they stool out strongly, are earlier, more vigorous and less susceptible to rust; they have stiff straw, stand up well, and are much more productive than Spring Oats. Sow in September, at the rate of $1\frac{1}{2}$ bushels per acre, and sow deep. They will stand much more severe weather when planted four inches deep than near the surface. (*See cut.*) 40c. peck, \$1.15 bushel of 32 lbs.; 10-bushel lots and upwards, \$1.10 bushel.



HENDERSON'S SUPERIOR WINTER OATS



Winter Oats.

HENDERSON'S SUPERIOR... WINTER RYE.

Rye is a valuable crop for either soiling, green fodder, straw or grain. It is largely used by farmers to seed down with in the fall, and is considered preferable to wheat for this purpose, as it protects the young grass, and matures two weeks earlier in the summer than wheat.

Winter.—The variety most commonly cultivated. \$1.10 bushel of 56 lbs.; 10-bushel lots, \$1.00 bushel.

Excelsior Winter.—A new variety from Vermont that has never failed to yield at the rate of 40 to 50 bushels per acre. With the originator, a four-acre field yielded 52 bushels to the acre. \$1.50 bushel of 56 lbs.; 10-bushel lots, \$1.40 bushel.

Thousandfold.—Said to be the most productive Rye in cultivation. \$1.50 bushel of 56 lbs.; 10-bushel lots, \$1.40 bushel.

Giant Winter.—Unquestionably the heaviest cropping Rye in existence, having in fair tests outyielded all other varieties both in straw and grain. The heads average six to eight inches in length and are filled from end to end with large, plump, heavy grains. The straw is giant in length and strength and of extraordinary stiffness, resisting severe wind and rain storms to a remarkable degree without lodging. (*See cut.*) \$1.75 bushel of 56 lbs.; 10-bushel lots, \$1.60 bushel.



Giant Winter Rye.

We are always pleased to hear from our farmer friends and offer any advice free on subjects connected with farm crops, etc.

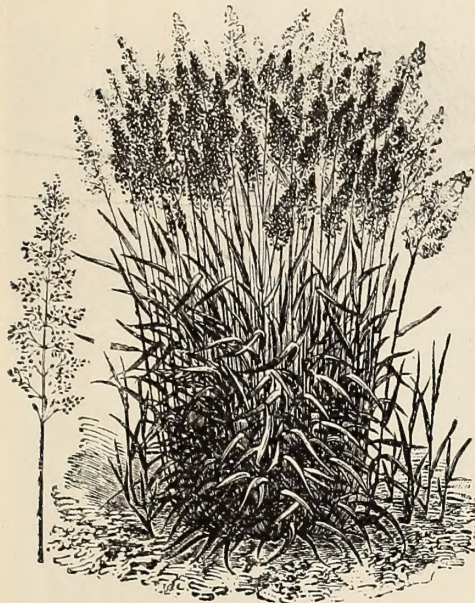
Henderson's Recleaned Grass Seeds

FOR FALL SOWING.

Special quotations for large quantities.
Prices subject to variation.

Henderson's Superior Grass Seeds

are of high germination and of choicest, recleaned quality. Our warehouses (250,000 bushels capacity), being especially equipped with the most modern seed-cleaning machinery, enable us to supply Recleaned Grass Seeds of undoubted superiority at lowest possible prices when quality is considered. We are to-day the largest suppliers of recleaned grass seeds direct to the farmer, and if at times lower prices are quoted, depend upon it that it is at the sacrifice of quality, for we are so equipped that NO ONE CAN UNDERSELL US FOR THE SAME QUALITIES.



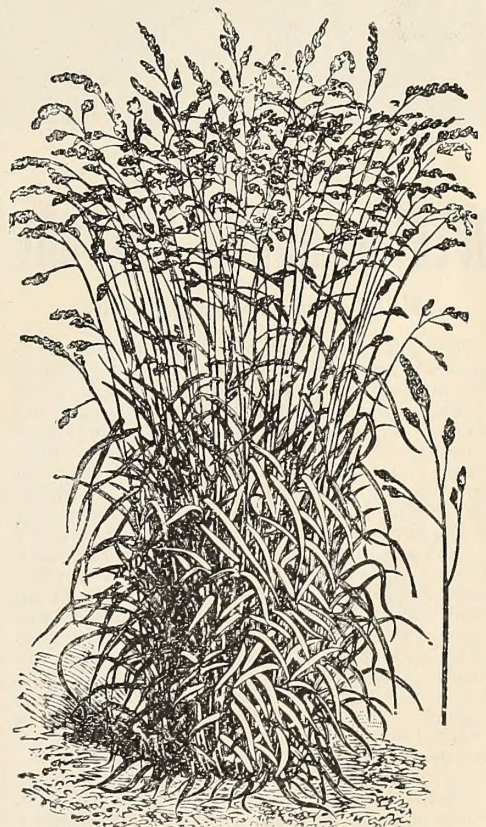
RED TOP.



ITALIAN RYE GRASS.

At both the Pan-American Exposition and the World's Fair we received SIXTY-FIVE MEDALS AND AWARDS, a large proportion of which were granted to our Grasses and Clovers for superior quality and purity of sample.

	Weight per bush.	Per bush.	Per lb.	Per 100 lbs.
AWNLESS BROME GRASS. (<i>Bromus Inermis</i> .) A new forage plant of the utmost importance, particularly in dry and Southern sections; yields enormously.....	14 lbs.	\$2.60	\$0.20	\$16.00
BERMUDA. (<i>Cynodon Dactylon</i> .) Valuable for Southern States, withstands the heat and drought.....	35 lbs.80	70.00
Canada Blue Grass. Useful for sowing on hard clay and poor soils.....	14 lbs.	1.75	.14	12.00
Creeping Bent Grass. (<i>Agrostis Stolonifera</i> .) Excellent for lawns; succeeds well in moist situations. About 2 bushels to the acre.....	20 lbs.	5.25	.28	25.00
Crested Dog's Tail. (<i>Cynosuroides Cristatus</i> .) Should enter in moderate quantity in permanent pasture mixtures and lawns.....	21 lbs.	10.00	.50	45.00
ENGLISH RYE GRASS. (<i>Lolium Perenne</i> .) A valuable Grass. 2½ to 3 bushels to the acre.....	24 lbs.	2.00	.10	8.00
Fine-Leaved Sheep's Fescue. (<i>Festuca Ovina Tenuifolia</i>).....	14 lbs.	5.75	.45	40.00
HARD FESCUE. (<i>Festuca Duriuscula</i> .) Dwarf, hardy grass, of great value for dry situations, indicates superior quality in hay.....	12 lbs.	2.40	.22	18.00
HUNGARIAN GRASS. (<i>Panicum Germanicum</i> .) Is a valuable annual forage plant. 1 bushel to the acre. Price variable.....	48 lbs.	2.20
ITALIAN RYE GRASS. (<i>Lolium Italicum</i> .) Unequaled for producing an abundance of early spring feed, giving quick and successive growths throughout the season.....	18 lbs.	1.50	.10	8.00
Johnson Grass. (<i>Sorghum Halapense</i> .) Of greatest importance for the South. Very tender and nutritious.....	25 lbs.	4.00	.18	14.00
KENTUCKY BLUE GRASS. (<i>Poa Pratensis</i> .) Very valuable for a variety of soils from moist to dry, furnishes delicious and luxuriant pasturage and makes excellent hay. Fancy or double extra clean....	14 lbs.	2.35	.20	16.00
MEADOW FESCUE. (<i>Festuca Pratensis</i> .) Of great value for permanent pasture and hay, robust grower and nutritious.....	22 lbs.	3.75	.18	16.00
MEADOW FOXTAIL. (<i>Alopecurus Pratensis</i> .) Resembles Timothy, but of much earlier and more rapid growth, particularly valuable for permanent pastures and hay. (See cut.).....	7 lbs.	2.60	.40	35.00
ORCHARD GRASS. (<i>Dactylis Glomerata</i> .) One of the most valuable of all grasses, for either grazing or mowing, of early, rapid and luxuriant growth. (See cut.).....	14 lbs.	2.75	.22	19.00
Red or Creeping Fescue. (<i>Festuca Rubra</i> .) Suitable for sandy sea-coasts and dry soils.....	14 lbs.	4.25	.32	28.00
RED TOP GRASS. (<i>Agrostis Vulgaris</i> .).....	14 lbs.	1.45	.12	9.00
Fancy recleaned silver seed.....	32 lbs.	5.25	.18	15.00
Rhode Island Bent Grass. (<i>Agrostis Canina</i> .) A very fine variety for lawns. About 3 bushels to the acre.....	14 lbs.	5.25	.40	35.00
Rough-Stalked Meadow Grass. (<i>Poa Trivialis</i> .) Valuable for pastures and meadows, particularly on damp soils. 1¼ bushels to the acre.....	14 lbs.	5.25	.40	35.00
SHEEP'S FESCUE. (<i>Festuca Ovina</i> .) Excellent for uplands and dry pastures, of close, dense and nutritive growth, relished by sheep.....	12 lbs.	2.40	.22	18.00
Sweet Vernal Grass. True Perennial. (<i>Anthoxanthum Odorum</i> .) Very aromatic, giving hay a fine flavor.....	10 lbs.	15.50	1.60
TALL MEADOW FESCUE. (<i>Festuca Elatior</i> .) Very early, nutritive and productive. Valuable on wet or clay soils.....	14 lbs.	6.50	.50	45.00
TALL MEADOW OAT GRASS. (<i>Avena Elatior</i> .) Recommended for soiling, being rapid and luxuriant in its growth. 4 to 5 bush. per acre.....	10 lbs.	2.70	.28	25.00
TIMOTHY. (<i>Phleum Pratense</i> .) We offer a particularly "choice" sample, ½ bushel per acre. Price variable.....	45 lbs.	3.25	.10	7.00
Various-Leaved Fescue. (<i>Festuca Heterophylla</i> .).....	14 lbs.	3.65	.28	25.00
Wood Meadow Grass. (<i>Poa Nemoralis</i> .) Of early growth and thriving well under trees. 2 bushels to the acre.....	14 lbs.	6.50	.50	45.00



ORCHARD GRASS.



HENDERSON'S SPECIAL GRASS MIXTURE

For Hay and Permanent Pasture.

This famous mixture has seeded thousands of acres of meadow and pasture land for progressive farmers and stock raisers in various parts of the United States, with most gratifying results. It is a well-balanced combination of a number of native and acclimated foreign grasses and clovers, blended and improved upon during exhaustive trials under widely varied conditions, soils and localities for several years, until practically perfect, our aim being to produce under the extremes of the American climate of heat, drought and cold, a PERMANENT, dense and deep-rooting turf that would yield year after year the maximum quantity of hay and afterwards to afford, if desired, a constant and abundant pasturage. Another important essential being superior quality, inviting, sweet and nourishing, whether as hay or pasture. That we have been successful is attested by the numerous letters of praise for this special grass mixture that we have received from the users, and the tributes to its merits published in many of the agricultural journals. Space permits us to print extracts from but a few of these encomiums on succeeding pages, to which we refer you, and for the complete description of Henderson's Special Grass Mixture for Hay and Permanent Pastures, see next page.



PRICES

Henderson's Special Grass Mixtures

(Described on pages 3 to 8)

Per Bushel of 14 Pounds.

<i>For Hay and Permanent Pasture for Light soils</i>	} Per bushel, \$2.50 20 bush. at 2.45 50 " at 2.40 100 " at 2.35
" " " " <i>Medium soils</i>	
" " " " <i>Heavy soils</i>	
" <i>Woodlands and Orchards, (page 12)</i>	
" <i>Hay only, (page 10)</i>	
" <i>Pasture only, (page 11)</i>	
" <i>Renovating Old Pastures, (page 12)</i>	

MIXED PERMANENT CLOVERS

10 Pounds required for 1 acre, **\$2.25.**

should be sown in addition to the above grass mixtures, but on account of greater weight the clover should be sown separately, and in cold latitudes, in the spring. This mixed clover comprises White, Mammoth Perennial or Cow Grass, Alsike, etc.

...Henderson's Special Grass Mixture...



*For HAY and PERMANENT PASTURE
Produces Wonderful Hay Crops and Luxuriant
Pasture*

The Yield of Hay under favorable conditions averages 3 to 4 tons per acre at the first cutting, or nearly double that of Timothy and Clover, and larger yields are not unusual; then, if not pastured, the second crop is usually about one-half the quantity of the first. This shows the great value of this special mixture of grasses over Timothy, which seldom yields a second crop, nor can it be pastured after cutting without seriously damaging the next season's yield, for Timothy after cutting throws its strength into its bulbous base, on which its yield the next season depends.

In Earliness this special grass mixture is about two weeks ahead of Timothy, enabling the haying to be finished before grain harvesting presses. This earliness gives a longer growing season for the aftermath, whether it is to be pastured or again cut for hay.

Pasturage. After the hay crop is cut the grass commences to grow at once, recovering its verdure in a few days' time and affording a continuous pasturage even through dry summer weather, until winter sets in; or the field may be pastured from earliest spring and still be in prime condition for yielding hay or pasture the next season, and so on year after year, for the various grasses composing this special mixture are all dense, fibrous-rooting varieties, sustaining no injury from cropping—proving its value over Timothy, which would be injured, probably ruined, under similar conditions.

Permanency. Henderson's Special Grass Mixture for Hay and Permanent Pasture, if properly laid down, will maintain its heavy cropping qualities twenty years and more if occasionally top-dressed with manure or suitable commercial fertilizer, and it will steadily improve, whereas a stand of Timothy soon commences to become thin and in three or four years must be plowed up and resown or rotated—with all of the attendant expense.

Heat and Drought-Resisting. The various kinds of grasses composing this special mixture are fibrous, deep-rooting varieties that spread and intermingle, forming a tough matted sod, free from stooling or tussock growth, and, in consequence, the grasses protect their own roots and are therefore less susceptible to extremes of heat and drought, retaining their verdure even through dry, hot weather, when Timothy is burned up.

Adapted to a Wide Range of Soils and Climate. This special mixture of grasses will thrive under a greater variety of soil and climatic conditions than Timothy, and in many instances gives bountiful returns where Timothy can scarcely be grown.

Daisies cannot exist in an established field of this special grass mixture—which covers the ground so thoroughly with dense turf, and if daisies be in the field they do not get a chance to seed, the hay being ready to cut before the daisies are ripe.

The Initial Cost is more in seeding with Henderson's Special Grass Mixture, *but* the ultimate returns are much more profitable than those from ordinary hay and pasture fields, and when the other advantages are considered—including the permanency of a maintained yield—the first expense will be found a paying and satisfactory investment.

The Seed Required. The amount of seed necessary to sow an acre largely depends on the quality of the land; the poorer the soil the larger the quantity required. Taking one soil with another, and owing to the fact that the seeds we use are of higher quality and better cleaned than ever, a fair average would be **3 bushels to the acre.** The thicker the seeds are sown the sooner will a fine, close turf be obtained.

To those accustomed to sow Timothy and Clover, the quantity of seed we recommend will seem large, but the seeds of these permanent grasses are quite different from Timothy, being much larger and lighter; but experience has proven that satisfactory results cannot be obtained with less seed than we recommend, unless under exceptionally favorable circumstances. It may be sown in either spring or fall.

A Description of Soil and Locality should be given when ordering. In the preparation of these mixtures for permanent pasture, the greatest care is exercised in selecting such varieties as are suited to the soil to be sown and are likely to realize the object in view. To facilitate this, **a description of the soil and climate, and the purpose for which sown,** and if *with or without* a grain crop, should accompany each order. **FULL DIRECTIONS FOR SOWING ENCLOSED IN EVERY BAG.**

Prices . . . HENDERSON'S SPECIAL GRASS MIXTURE for HAY and PERMANENT PASTURE, for light soils, medium soils or heavy soils (state which in ordering): \$2.50 per bushel of 14 lbs.; 20-bushel lots @ \$2.45 per bushel; 50 bushels @ \$2.40; 100 bushels @ \$2.35. Mixed Permanent Clovers, 10 lbs. to sow an acre, \$2.25. (See page 8.)

HENDERSON'S PERMANENT GRASS MIXTURE FOR HAY



CUTTING 4½ TONS PER ACRE . SEVENTH YEAR AFTER SEEDING

HENDERSON'S SPECIAL GRASS MIXTURE for PERMANENT HAY

PRODUCES

DOUBLE THE QUANTITY

of

TIMOTHY and CLOVER

and maintains the yield 20 years and more.



SUPPLIES A GOOD CROP OF

HAY

In dry seasons when ordinary Hayfields are burned up. :: ::



QUALITY SUPERIOR.

ALTHOUGH the most widely cultivated hay grass in the United States is Timothy, or a mixture of Timothy and Clover, and while they answer the purpose admirably on farms where the soil is suitable and where the usual three and four years' rotation is carried on, yet, there are many other grasses which will yield more profitable returns.

The prevailing low prices of Wheat, Corn and other grain crops have made their growing, and the usual rotation farming unprofitable, especially in the Eastern States, where it is impossible to compete with the rich prairie soils of the West, but hay still yields a fair profit, and the farmer whose land is sown with a proper mixture of Permanent Grasses, requiring only an occasional top dressing of manure or fertilizer to MAINTAIN THEIR HEAVY CROPPING QUALITIES FOR TWENTY YEARS OR MORE, does away with the necessity for plowing and rotation cropping with all its attendant expense.

The most serious item of expense on the farm, the labor bill, can be largely reduced and thus give reasonable prospect of profitable annual returns at a minimum of labor and expense. The seed of these Permanent Grasses is more costly than Timothy, and more is required per acre, but by reason of their heavy cropping qualities and permanency they soon repay the extra cost and leave a handsome margin for the farmer, when the cost of plowing, harrowing and re-seeding Timothy every three and four years is taken into consideration.

The grasses used in this Mixture recover quickly after the hay crop is cut, and yield either a second crop or pasture in the greatest abundance during the summer and fall months. Within a few days after cutting, their rich green appearance as compared with Timothy is a desirable feature, especially in fields close to the house, as it gives a park-lawn effect to the surroundings. Sow 3 bushels per acre. Directions in every bag. Price, \$2.50 per bush.; 20 bush. @ \$2.45; 50 bush. @ \$2.40; 100 bush. @ \$2.35. (State whether wanted for light, medium or heavy soils.) Mixed Permanent Clovers, 10 lbs. to sow an acre, \$2.25; should be sown in spring. (See page 8.)

HENDERSON'S SPECIAL GRASS MIXTURE FOR PERMANENT PASTURE.



HENDERSON'S SPECIAL ... GRASS MIXTURE FOR PERMANENT PASTURE

THERE is no more important part of a farm than a good pasture, and that can only be obtained by the use of the proper grasses, varieties that have different root formations and different habits and seasons of growth, in order to maintain a rich, close turf throughout the entire season. Timothy should never be used for pasture, because it will *not* stand trampling, and soon runs out when heavily pastured and at best is short-lived, as compared with the permanent grasses used in our Special Mixtures. These Mixtures contain over a dozen of the best permanent grasses, both American-grown and imported. All are permanent, and when once established will last indefinitely, if the fertility of the soil is kept up by occasional top-dressing. Owing to the different habits of growth, the grasses grow closer together and form a rich, close turf, covering the soil completely and forming a protection to the roots during hot, dry weather, thereby enabling these grasses to maintain a rich green appearance when Timothy and other grasses are burned up. The thick turf also prevents animals poaching through and destroying the pasture.

We have for years studied the subject of pastures and their formation with exhaustive tests on our own trial farms, where we have had growing separately and in different mixtures all the grasses of which seed can be procured in commercial quantities. These trials have been broadly studied and the results watched with critical interest on the farms of our customers. We are in an unrivalled position to advise you on the subject and to supply suitable grass seeds for Permanent Pasture. While it costs a little more to seed an acre with this special mixture, yet results are so superior and permanent that they more than offset the original cost. Sow not less than 3 bushels per acre. Directions enclosed in every bag.

PRICE: \$2 50 per bushel; 20 bushels @ \$2.45; 50 bushels @ \$2.40; 100 bushels @ \$2.35. (State whether wanted for light, medium or heavy soils.)

Mixed Permanent Clovers, 10 lbs. to sow an acre, \$2.25. Should be sown in spring. (See page 8.)

SUPPLIES

CONTINUOUS and ABUNDANT
PASTURAGE

For 20 Years

AND MORE,

From Earliest Spring until
Winter.

GREEN AND SUGGULENT
ALL SUMMER LONG,

WHEN

ORDINARY GRAZING LANDS
ARE BURNED UP.

UNQUESTIONABLY
SUPERIOR.



HENDERSON'S Renovating Mixture FOR Improving Old Pastures.

\$2.50 per bushel of 14 lbs.

20-bushel lots, \$2.45 per bushel.

Mixed Clovers, 5 lbs. to sow an acre, \$1.15.

GRASS lands, in consequence of being constantly mown or pastured without being fertilized or manured, frequently become impoverished and deficient in the more valuable and nutritious grasses, and in time become unprofitable. It is frequently unnecessary to plow up such land unless it be full of weeds. The turf should be well harrowed with a sharp-tooth harrow, and, if possible, top-dressed with soil and well-rotted stable manure, which should be well harrowed in, and then sown with **HENDERSON'S RENOVATING MIXTURE**, at the rate of one bushel per acre, and five pounds of mixed clovers. This mixture is composed of those sorts that are best suited for sowing on old pastures or meadows, and it will **speedily improve the quality and increase the produce**. March and April are the best months for sowing, choosing an interval between rains if possible, though, if inconvenient to sow then, very satisfactory results can be obtained by fall sowing. After sowing, the ground should be lightly harrowed and afterward well rolled.



HENDERSON'S Special Grass Mixture FOR Woodland Pastures.

\$2.50 per bushel of 14 lbs.

20-bushel lots, \$2.45 per bushel.

UNLESS there is a superabundance of nitrogen in the soil and a consequent excessive wood growth, in which case it is desirable to sow the land with grasses, it is now customary to sow orchards with cover crops, such as Cow Peas, Clover, etc. These are plowed under and the orchard kept in constant cultivation. But where it is desired to sow the orchard with grass, or for woodland pastures, even when the shade is comparatively dense, we can with all confidence recommend this mixture.

It is composed of a selection of grasses which from exhaustive experiments we have found will thrive under trees. Orchard Grass is, of course, one of the best grasses for the purpose, but this mixture is much superior, as it will make a closer and more even pasture than Orchard Grass alone.

**HENDERSON'S
SPECIAL
GRASS
MIXTURE**

for HAY and
PERMANENT
PASTURE.

Described and priced
on pages 8 and 9.



**ONLY A FEW OF
MANY
LETTERS
OF PRAISE**

from
**STOCK MEN
and
FARMERS**

We have
**HUNDREDS MORE of
SIMILAR PURPORT**

PENNSYLVANIA.

"The grass seed I bought of you produced four mowings for feeding during last season and is the best piece of grass in this section." REV. U. MYERS.

"The growth is simply wonderful, and do not think there is any other grass to equal it for hay or pasture. I sowed about ten acres, from which I have cut what I consider the best hay ever made on my farms." J. S. LONG.

"The Grass seed sent me turned out well. It makes a good grass for meadow or for grazing. It is fine, close grass and the cattle like it." PAUL A. OLIVER.

"The green appearance of the field attracted universal attention. The seed seemed to get hold of the soil completely. It has far surpassed clover and timothy in the amount it yields." J. B. CUMMINGS.

CONNECTICUT.

"The 16 bushels Permanent Pasture Grass you sent me has proved a perfect success. I shall want more in the spring." J. S. MACFARLANE.

"I used 30 bushels of your mixture for permanent meadow on seven acres in one field, and a little less than three acres in another. This year from the three acres I got 9 two-horse loads of excellent quality, and from the seven acres I got 28 two-horse loads, averaging a ton each. I expect to get a good second crop. The mixtures are better than the old-fashioned seeding of Timothy, Red-top and Clover." R. E. HOLMES.

NEW JERSEY.

"From your Permanent Pasture Mixture, about eighty bushels, I had two crops, together about 3½ tons per acre." E. J. GEHLEN.

"Your Grass Mixture was acknowledged by all who saw it to be the best field of grass in this section." JOHN S. BIGELOW.

"We mowed a very good crop the 20th of June, and in two weeks had good pasture—the best in the township, and very good now, and much admired by the neighboring farmers. Our Timothy meadow is nearly all killed or dried up, no pasture. But the Special Grass Mixture is now very nice and green." E. W. BRUEN.

"I have an even, solid stand of grass that affords ample pasture, and far better than those adjoining me who depend on Clover and Timothy." E. P. LAFETRA.

VERMONT.

"I have used your grass seeds for several years, and they are easily the best in the market." F. C. KIMBALL.

"I am more than pleased with the results of both Lawn and Pasture, and am satisfied that P. H. & Co.'s seeds are unsurpassed." C. F. HASTINGS.

VIRGINIA.

"My manager is enthusiastic over your Mixture for Hay and Permanent Pasture. He claims this year he cut 3 tons per acre the first cutting, 1¾ tons the second, and will cut 2 tons the third. The field is a grand sight. People come for miles around to see it." E. E. BARNEY.

IOWA.

"The Grass Mixture I got on you has done extra well, especially this year of drought. It stood the drought and yielded about twice as much as Timothy, and the cattle seem to do better on it." WILLARD WATSON.

MARYLAND.

"It gives me pleasure to inform you that from the Grass seed I bought of you I got a good stand and a splendid growth. I am well pleased; it does well in this section." S. C. JONES.

NEW YORK.

"The crop was much in excess of ordinary grass seeds or Timothy used in the neighborhood. As an evidence of my satisfaction, I have seeded down another lot this fall, using the same seed." JAMES A. MILLER, JR.

"The Special Grass Mixtures bought from you have given every satisfaction, and, after my experience with them, I should never think of planting Timothy again." CHARLES H. LEAYCRAFT.

"It's the finest piece of grass anywhere about here. An old farmer told me last week it would cut 3½ tons to the acre sure." JAMES M. RICHARDS.

"Your Special Mixture of Grasses was a success; compared with Timothy and Clover, the yield is double." OSCAR SILLECK.

"It has yielded more than double the amount of pasture a piece of Timothy and Clover of the same size would have done under the same conditions." FRANK G. MCCOLLUM.

MASSACHUSETTS.

"The Grass Seed turned out very satisfactory, and we have this year cut three large crops of grass from the land seeded last fall with the seed bought of you." C. E. ROGERS.

"The seed for the meadow land was all right, and has proved a great success in every way. I have cut two heavy crops each year." W. H. FAIRBANK.

"The Grass Seed came up so rank I had to cut it the forepart of June, a very heavy crop of nice hay." E. L. BARTLETT.

"This is the third year and there was a heavy crop cut on it two weeks before Timothy was ready, and much to my surprise, there was quite a good second crop in spite of the very dry season." H. L. PARK.

Henderson's Superior . . . Re-cleaned . . . Crimson or Scarlet Clover.

(*Trifolium Incarnatum.*)

A BOON TO AGRICULTURE. THE MOST VALUABLE PLANT FOR RESTORING THE FERTILITY OF WORN-OUT SOILS.

THE value of Scarlet Clover is now so thoroughly established that we have no hesitation in recommending that all lands from which crops have been harvested during the summer and fall should be sown with Scarlet Clover for plowing under the following spring. Authorities who have made a careful estimate state that plowing under a good crop of Scarlet Clover is equivalent to 20 tons of stable manure per acre, and even if the Clover be harvested or pastured, the benefits derived from the wonderful nitrogenous root formation will alone many times repay the cost of seed and labor. The quality of the hay and fodder is superior to that of Red Clover, being more digestible and much richer in protein.

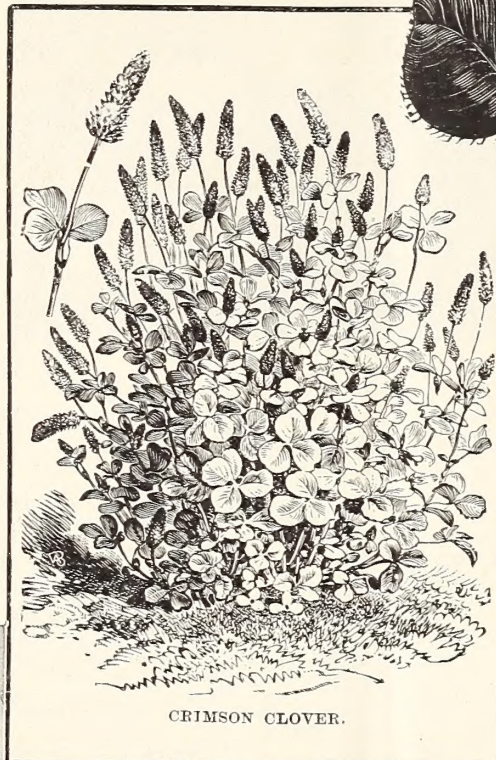
If intended for feeding, it should always be cut while in the young stage and never fed to stock after the crop has ceased flowering, as serious results are apt to follow the feeding of overripe Crimson Clover.

It is the cheapest source of nitrogen, and has revolutionized the methods of farming in New Jersey, Maryland and Delaware, has restored to profitable cultivation thousands of acres of poor land, and should be extensively used throughout the entire United States.

It may be sown among corn, tomatoes, turnips, etc., at time of last hoeing, or after potatoes, melons, cucumbers, etc., have been harvested, or on grain stubble and harrowed in. When sown in July and August, Dwarf Essex Rape may also be sown along with it, at the rate of 4 or 5 lbs. per acre, for pasturing sheep in the fall. The clover will be but little damaged by pasturing the rape, and will grow rapidly the following spring.

When sown in July or early in August, it has proved hardy as far north as Michigan and Canada, but *in the north* a good plan is to top-dress after sowing with some long manure or sow a sprinkling of Rye as protection. In the latitude of New York time of sowing may extend from July 15th to September 30th, and further south even later. Sow 15 lbs. per acre.

Choice New Crop Seed of highest growing quality, thoroughly re-cleaned and free from weed seeds, 10c. per lb., \$4.25 per bushel, \$6.75 per 100 lbs.



CRIMSON CLOVER.



CRIMSON CLOVER.

Peter Henderson & Co.'s FARM SEED DEPARTMENT

Is undoubtedly the largest and most complete in America. Here are brought together the choicest grains that the world produces. Neither trouble nor expense is spared in the production, selection and re-cleaning of the best Cereals, Grasses, Clovers, Mangels, Turnips, Forage Plants, etc. Our celebrated mixtures of Grasses and Clovers, for permanent pasture and hay crops, have become famous with America's most progressive farmers.

We are pleased to offer advice free on subjects in connection with preparation and maintenance of grass lands, forage, green crops, soiling, rotation, silos, etc.

Henderson's American Farmer's Manual.

(Issued every February; mailed free on application.)

This is a complete Catalogue of Farm Seeds. All useful Grasses and Clovers, including Special Grass Mixtures for permanent pasture and hay, improved varieties of Corn, new Wheats, Seed Oats and other cereals, root crops for farm stock, Millets, Sorghums, Field Peas and Beans, nitrogen-producing "green" manure, and many other crops of value to the farmer are fully described and illustrated.



Dwarf Essex Rape



At the Michigan Experiment Station, 125 lambs were pastured for eight weeks on 15 acres of Rape sown in July, and showed a gain of 2,890 lbs., or at the rate of 3 lbs. per lamb each week.

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TRUE DWARF ESSEX RAPE.

Valuable for Cattle, Sheep and Hogs.

In the United States we have millions of acres of good land that annually lie idle or run to weeds the latter part of the season, after the grain, potato and hay crops have been harvested, a large portion of which might be made to produce one of the finest feeds imaginable, and in the greatest abundance, at a time when cattle, sheep and hogs are roaming through bare pastures in search of a scanty living. Under favorable conditions it is ready for pasturing sheep or cattle within six weeks from time of sowing, and on an average one acre will carry twelve to fifteen sheep six weeks to two months. When on the Rape they should at all times have access to salt; but water is not necessary. There are several varieties of Rape, but care should be taken to procure the **Dwarf Essex**, or English, as it is sometimes called, which does not seed the same season as sown, unless in some exceptional cases, as when sown too early and the young plant is touched by frost. In the Northern States it should be sown from April to end of August for fall pasturing, but as it thrives best in cool weather, it should not be sown in the Southern States until September, or October for winter pasture. In the latitude of New York it should be sown in April, or in July or August. Its fattening properties are probably twice as good as those of Clover, and for sheep the feeding value of Rape excels all other plants we know of. At the Michigan Experiment Station, 128 lambs were pastured for eight weeks on 15 acres of Rape sown in July, and showed a gain of 2,890 lbs., or at the rate of 3 lbs. per lamb each week. Even so far South as Alabama it has proved a boon to the farmer. In a recent bulletin published by the Alabama Experiment Station they state: "Quality of product good for both hogs and cattle. The growth was enormous. By repeated sowings it will and did carry more hogs through our dry, hot summers than four times the amount of land planted in anything else ever grown here. I would recommend it to all Southern farmers." To secure the best results, the Rape should be sown in drills. Sow 4 lbs. per acre broadcast, 2 to 3 lbs. per acre in drills. (See cut.) Price, 10c. lb., \$3.25 bushel of 50 lbs., 100 lbs. \$6.25. If by mail, add 8c. per lb.

SAND, OR WINTER VETCH.

(*Vicia Villosa*.)

Though it succeeds and produces good crops on poor, sandy soils, it is much more vigorous on good land and grows to a height of 4 to 5 feet. It is perfectly hardy throughout the United States, remaining green all winter, and should be sown during August and September, mixed with Mammoth Red Clover, in sections where it will not winter-kill, or with Rye, which serves as a support for the plants; or in spring with Oats or Barley.

It is the earliest crop for cutting, being nearly a month earlier than Scarlet Clover, and a full crop can be taken off the land in time for planting spring crops. Being much hardier than Scarlet Clover, this is the Forage Plant to sow in the Northern States, where Scarlet Clover winter-kills, though it is equally valuable in the South. Every dairyman and stock-breeder in the United States should have a field of it, and if you try it once you will never be a season without it.

It is exceedingly nutritious, much more so than Clover, is eaten with relish, and may be fed with safety to all kinds of stock.

It will also prove valuable for a Hay crop in the South and dry Western regions, as it may be sown in the fall and will make a luxuriant growth during the fall and spring months, and will yield a heavy crop, which may be cut and stored before the droughts set in.

Sow one bushel per acre, with one-half bushel of Rye or Wheat. (See cut.) Price, 12c. lb., \$6.50 bushel of 60 lbs., 100 lbs. \$10.50. If by mail, add 8c. per lb.



SAND OR WINTER VETCH

HENDERSON'S SUPERIOR
SEED WHEAT



Diamond Grit.

Pedigree Giant.

Bearded Rural New Yorker.
(No. 57.)

Clawson Long Berry.